

(12) UK Patent Application (11) GB (11) 2 341 762 (13) A

(43) Date of A Publication 22.03.2000

(21) Application No 9927941.6

(22) Date of Filing 22.07.1996

Date Lodged 29.11.1999

(30) Priority Data

(31) 08509677 (32) 31.07.1995 (33) US

(62) Divided from Application No 9615331.7 under Section 15(4) of the Patents Act 1977

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(51) INT CL⁷

H04B 7/185

(52) UK CL (Edition R)

H4L LDRRX

(56) Documents Cited

EP 0549220 A2

(58) Field of Search

UK CL (Edition R) H4L LDFC LDRRX LD SG LD SHL
LD SHN LFMA LFMX
INT CL⁷ B64G 1/10 , H04B 7/185 7/19 7/195 7/204
17/02 , H04Q 7/38
ONLINE: WPI, PAJ, EPDOC

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(54) Abstract Title

Independent satellite-based communications systems sharing common frequency spectrum and method of operation thereof

(57) Multiple, different, independent constellations (10, 20) of satellites (2, 21-23) share a portion of a common frequency spectrum such as a single carrier frequency. The satellites' antennas (11) may be either multi-beam or omnidirectional, while those of earth stations (13, 14) are directional. When interference occurs between communications of a satellite (31) of a first constellation (10) and a satellite (41) of a second constellation (20), any of several interference-mitigation options may be employed, such as the first satellite (31) handing off communications to a second satellite (32) of the same constellation (10), or temporarily suspending communications. The remedial action may occur in response to either predicted or detected interference.

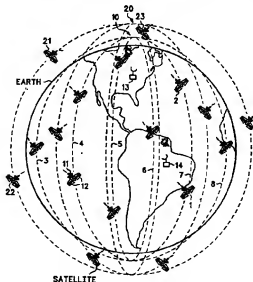


FIG. 1

GB 2 341 762 A